

REMARKS

After entry of this Amendment, claims 1-9 and 11 are pending in the application. Claim 10 has been cancelled without prejudice. New claim 11 has been added. Reconsideration of the Examiner's rejection is requested.

In the Office Action dated February 22, 2006, claim 6 stands objected to under 35 U.S.C. §132.(a) as introducing new matter into the disclosure. The Examiner asserts that recitation of the limitation that the seal "includes an aperture, the aperture receiving" is not supported in the original specification. However, the Examiner indicates that the side view of Figure 2 shows the seal having a workpiece passing through it. While it is contested that the original disclosure supports the recitation of an aperture, since the workpiece could not pass through the seal without an aperture being present, the claim has been amended to adopt the language used by the Examiner in describing the side view of Figure 2. Therefore, claim 6 now recites "the workpiece passes through the seal". Reconsideration of the Examiner's objection to claim 6 is requested.

Claim 6 also stands rejected under 35 U.S.C. §112 first paragraph as failing to comply with the written description requirement. It is submitted that claim 6 has been amended to now recite that the workpiece passes through the seal. Reconsideration of the Examiner's rejection of Claim 6 under 35 U.S.C. §112, first paragraph is requested.

Claims 1-6 and 10 stand rejected under 35 U.S.C. §102(b) as being anticipated by Angelini (U.S. Patent No. 3,852,170). The Examiner asserts that Angelini teaches a plating device comprising at least one of a cell or plating tank (Figure 1, tank 29), a contact box (Figure 1, box 23') located after the cell in the direction of transportation, at least one partition (Figure 3, feature 29') separating the cell from the contact zone, and a seal (Figure 3, feature 30) surrounding the workpiece, characterized in that the seal is situated at the outlet of the jet cell. The Examiner states that the jet cell of the instant claim is broadly interpreted to be any electro-plating bath or tank capable of having an electrolyte flowing through under pressure (emphasis added). The Examiner states that since the instant specification fails to structurally define a jet cell, any electro-plating bath or tank structurally capable of having an electrolyte flowing through under pressure would read on a jet

cell (emphasis added). It is submitted that an open top atmospheric pressure tank as disclosed in the Angelini reference is incapable of having an electrolyte flowing through under pressure, since an open tank of fluid has only static pressure head since it is not an enclosed chamber capable of receiving higher dynamic fluid flow pressures (i.e. a pressure vessel). Increasing pressure and flow to the Angelini device would result in the electrolyte overflowing the top of the open tank for the electroplating bath. See column 5, lines 33-41 which indicates that a constant liquid level L is maintained above bar 10 and tubular electrode 31 as shown in Figure 3. Increasing bath pressure within a jet cell increases the operating pressure of the vessel.

Increasing "back pressure" in Angelini would not increase the pressure within the open top atmospheric pressure, tank. Accordingly, it is submitted that the Angelini reference does not disclose structural features capable of performing the structure and operation as recited in the present claims. The claims now specifically recite a galvanizing device having at least one jet cell with electrolyte circulating through under high pressure, which is not anticipated, taught or rendered obvious by the Angelini reference. With regard to Claim 2, feature 121 of Figure 15 in Angelini is located outside of the atmospheric pressure plating tank 116 and is located in a plane parallel to a longitudinal axis of the outlet, and therefore does not surround the outlet as recited in the claim. With regard to Claim 3, the Angelini prebaffle feature 30 of Figure 7 is inconsistent with the prebaffle 121 identified with respect to Claim 2.

The prebaffle 30 is defined in the Angelini specification as a sealing device 30 in exit tank wall 29' (see column 5, lines 56-57). The Examiner's interpretation of Claim 4 is inconsistent with the teaching of the Angelini device. In particular, the Angelini device teaches air pressure supplied through tube 59 (Figure 7) into chamber 58 in order to expand diaphragm 57 into engagement with the outer surface of the workpiece 10. This provides engagement and positive sealing. However, the prebaffle does not create a back-pressure in tank 29, since atmospheric pressure tank 29 does not operate as a pressure vessel. With regard to Claim 5, the Examiner asserts that Angelini teaches a plating device wherein the seal is formed by a plate type referring to column 7, lines 47-52. The plate type configuration referred to in column 7, lines 47-52 is further described in column 8 starting at line 51, where it indicates that bar 138 is surrounded throughout its profile by a double row of flexible blades 139 which are staggered relative to blades in an adjoining row so that one

blade in a row will bridge the spacing between two adjoining blades in the other row. As clearly seen in Figure 18, this discloses a contact type seal. Claim 1 now recites that the seal is situated at the outlet of the jet cell to precisely align with an outer perimeter of the workpiece and has a non-contact opening slightly larger than an outer perimeter of the workpiece, so that electrolyte adhering to an outer perimeter of the workpiece is stripped off without contact. Therefore, this specific structural configuration is not anticipated, taught or rendered obvious by the Angelini reference. Further, Claim 5 now recites that the stripper plate is held in place by static pressure of the electrolyte. This specific structural configuration is not anticipated, taught or rendered obvious by the Angelini reference. Reconsideration of the Examiner's rejection is requested.

Claims 7-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Angelini. The Examiner states that the Angelini reference does not explicitly teach the prebaffle made of plastic or the prebaffle having an essentially cubic bowl shape. The Examiner asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Angelini by making the body or prebaffle out of plastic because it would prevent corrosion or wear of the body or prebaffle from exposure to the electrolyte and that the specific shape of the sealing sleeve body or prebaffle would be a matter of design choice within the abilities of one having ordinary skill in the art. It is submitted that the Angelini reference does not anticipate, teach or suggest the invention as recited in Claims 7 and 8. In particular, the Angelini reference does not teach or suggest at least one jet cell with electrolyte circulating through under high pressure and/or a seal precisely aligned with an outer perimeter of the workpiece and having a non contact opening slightly larger than an outer perimeter of the workpiece, so that the electrolyte adhering to an outer perimeter of the workpiece is stripped off without contact as recited in independent claim 1. Reconsideration of the Examiner's rejection is requested.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Angelini in view of Labenski et al. (U.S. Patent No. 4,003,760). The Examiner states that the Angelini does not explicitly teach the device as configured to galvanized brake lines, and that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the

apparatus of Angelini by galvanizing brake lines as taught by Labenski et al., because it would provide a coating for corrosion protection which meets the requirements of the finished article. It is submitted that the addition of the Labenski et al. reference to the disclosure of Angelini does not overcome the deficiencies of the Angelini references as discussed in greater detail above with respect to independent claim 1. The Labenski reference does not disclose or suggest at least one jet cell with electrolyte circulating through under high pressure and a seal precisely aligned with an outer perimeter of the workpiece and having a non-contact opening slightly larger than the outer perimeter of the workpiece so that the electrolyte adhering to an outer perimeter of the workpiece is stripped off without contact. Reconsideration of the Examiner's rejection is requested.

Claim 10 has been cancelled without prejudice and new Claim 11 has been submitted for the Examiner's consideration. New Claim 11 specifically recites the structural configuration of the present invention in Jepson form. The improvement of a high speed galvanizing device having at least one jet cell with electrolyte circulating through at high pressure, through which a workpiece to be galvanized is passed, the galvanizing device having a contact zone located after the jet cell in the direction of transportation and at least one partition separating the jet cell from the contact zone, and a seal surrounding the workpiece, where the improvement comprises a plastic prebaffle chamber attached to and surrounding the outlet of the jet cell the prebaffle chamber having at least two opposing sidewalls with two axial openings formed in the opposing sidewalls of the chamber, the openings of sufficient size with respect to the workpiece to slow the high pressure electrolyte stream leaving the jet cell thereby creating back pressure within the jet cell, and the seal located at the outlet of the jet cell and mounted on the prebaffle chamber to precisely align with an outer perimeter of the workpiece, the seal including a non-contact stripper plate having an opening slightly larger than an outer perimeter of the workpiece and held in position against an inside surface of one of the two opposing sidewalls of the prebaffle chamber by static pressure of the electrolyte, so that an electrolyte adhering to the outer perimeter of the workpiece is stripped off without contact thereby entraining less electrolyte into the contact zone and improving surface life of the seal. It is submitted that this specific structural configuration is not anticipated, taught or rendered obvious by the Angelini or

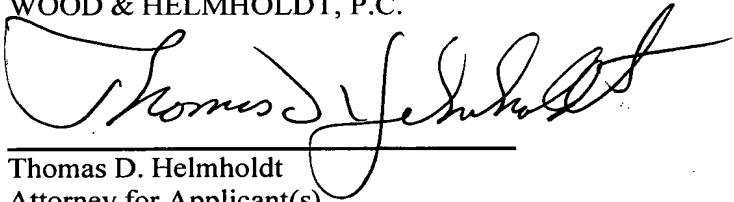
Labenski et al references, taken singularly or in any permissible combination. The Examiner's consideration of new Claim 11 is requested.

This after final amendment: (1) does not raise new issues that would require further consideration and/or search, since the proposed amendments incorporate previously recited limitations from dependent claims into the independent claims and these limitations have been previously considered and searched by the Examiner; (2) does not raise the issue of new matter, since the proposed amendments have support in the originally filed application including the specification, claims and drawings; (3) does places the application in better form for appeal by materially reducing and/or simplifying the issues for appeal; and/or (4) does not present additional claims without cancelling a corresponding number of finally rejected claims.

It is respectfully submitted that this Amendment traverses and overcomes all of the Examiner's objections and rejections to the application as originally filed. It is further submitted that this Amendment has antecedent basis in the application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the application as amended is requested. It is respectfully submitted that this Amendment places the application in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

Respectfully submitted,
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